

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## **Electrocity Online Energy Simulation**

([www.electrocity.co.nz](http://www.electrocity.co.nz))

**NOTE:** for updates to this activity and to explore other geography-related computer games, go to [www.changegamer.ca](http://www.changegamer.ca).

ElectroCity is a fun and educational online game that simulates, in a very simplified way, energy management. ElectroCity allows players to create their own city and explore different approaches to energy and the environment.



### **Before Starting the Simulation:**

1. Before starting Electrocity, spend some time working on the 'Types of Energy' organizer using the link provided (see below). You can fill in any gaps to the organizer after completing the game.

### **During the Simulation:**

1. Go to [www.electrocity.co.nz](http://www.electrocity.co.nz) and click "How to Play". Spend some time going over the instructions (this will help you in the long run!).
2. Click on "Finished Cities" to see what is possible.
3. Click on "Game" to start your simulation.
4. You will have 150 "turns" to complete your simulation (if you don't go bankrupt first!). NOTE: the "Local Body Rate" is how much tax you are charging your citizens (this game was created in New Zealand).
5. After you have finished each "attempt" at the simulation, record your scores below. NOTE: you will not be marked on your scores.

### **After the Simulation:**

1. When you have completed three attempts, answer the Analysis Questions below.

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### **Scores:**

Attempt 1      Final Population Tally: \_\_\_\_\_      Final Money Tally: \_\_\_\_\_

Energy Management Score: \_\_\_\_; Popularity Score: \_\_\_\_; Population Score: \_\_\_\_; Enviro. Score: \_\_\_\_

Overall Score: \_\_\_\_\_

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Attempt 2      Final Population Tally: \_\_\_\_\_      Final Money Tally: \_\_\_\_\_

Energy Management Score: \_\_\_\_; Popularity Score: \_\_\_\_; Population Score: \_\_\_\_; Enviro. Score: \_\_\_\_

Overall Score: \_\_\_\_\_

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Attempt 3      Final Population Tally: \_\_\_\_\_      Final Money Tally: \_\_\_\_\_

Energy Management Score: \_\_\_\_; Popularity Score: \_\_\_\_; Population Score: \_\_\_\_; Enviro. Score: \_\_\_\_






Overall Score: \_\_\_\_\_






### Analysis Questions:

1. Out of the ten main energy types we looked at in the organizer, which one do you think was the most beneficial during the simulation? Explain (include variables such as amount of power produced, costs, environmental effects, ability to upgrade, etc.).
2. Which of the ten energy types was the least beneficial? Explain.
3. Research where your city or town gets its energy supply and briefly summarize this. What do you think are the pros and cons of the current energy set-up for your city?
4. Research any city or town in the world that you believe is taking an innovative and exemplary approach to energy supply and conservation. Briefly summarize your findings.
5. Looking to the future, what recommendations do you have for your city's energy supply and conservation programs for the next few decades?

## **Types of Energy Organizer** (Electricity Fact Sheets)

Go to [www.electrocity.co.nz/Resources/](http://www.electrocity.co.nz/Resources/) and use the fact sheets under "Downloads" to complete the following organizer in point form:

| <b>Type of Energy</b>                                                                               | <b>How is electricity generated?</b> | <b>What are the main advantages?</b> | <b>What are the main disadvantages?</b> |
|-----------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|-----------------------------------------|
| Co-generation<br>  |                                      |                                      |                                         |
| Hydro Energy<br>   |                                      |                                      |                                         |
| Nuclear Energy<br> |                                      |                                      |                                         |
| Ocean Energy<br> |                                      |                                      |                                         |
| Solar Energy<br> |                                      |                                      |                                         |

| Type of Energy                                                                                                     | How is electricity generated? | What are the main advantages? | What are the main disadvantages? |
|--------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------|----------------------------------|
| Wind Energy<br>                   |                               |                               |                                  |
| Thermal Energy – Coal<br>         |                               |                               |                                  |
| Thermal Energy – Natural Gas<br>  |                               |                               |                                  |
| Thermal Energy – Biomass<br>     |                               |                               |                                  |
| Thermal Energy – Geothermal<br> |                               |                               |                                  |